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РОССИЙСКОЕ АГЕНТСТВО
ПО ПАТЕНТАМ И ТОВАРНЫМ ЗНАКАМ

(12) ОПИСАНИЕ ИЗОБРЕТЕНИЯ К ПАТЕНТУ РОССИЙСКОЙ ФЕДЕРАЦИИ

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Акционерное общество закрытого типа "Рот Фронт"

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(54) СПОСОБ ПРОИЗВОДСТВА КАРАМЕЛИ

(57) Реферат:

Изобретение предназначено для приготовления сахаристых кондитерских изделий. Вначале приготовления данных изделий ведут приготовление сиропа, для чего растворяют сахар, добавляют в раствор патоку и воду и уваривают полученную смесь. Подготовленную карамельную массу подвергают насыщению воздухом, для чего подают воздух в дно горизонтальной емкости

через форсунки, вмонтированные к ее дну. Карамельная масса одновременно с насыщением воздухом подвергается перемешиванию лопастями шнека. При перемешивании в карамельную массу вносят вкусовые и ароматические вещества. Предлагаемый способ обеспечивает получение карамели с более высокими качественными показателями: 2 з.п. ф-лы.

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2. US 3,985,909, cl. A23G 3/00, 1976

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(54) METHOD OF PRODUCING HARD CANDY

The invention is useful for preparation of sugar-based confectionary. In the beginning of the process, a syrup is prepared; for that, sugar is dissolved, molasses and water are added to the solution, and the resulting mixture is subjected to evaporating. The obtained hot candy melt is gasified by air; for that, air is fed through the bottom of a horizontal vessel through the nozzles mounted in its bottom. The hard candy mass is agitated with the blades of a screw and simultaneously aerated. During the agitation, flavoring agents are added. The present process allows to obtain hard candy having improved characteristics. 2 subclaims

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The invention relates to the production of food, in particular of confectionary and may be useful for preparing sugar-based confectionary.

It is known a process of producing hard candy, comprising providing hot candy melt, loading the melt into a reactor and gasifying the melt with a pressurized gas, with subsequent discharging of the melt into another vessel [1].

The deficiency of the known process is as follows: it is impossible to gasify the melt throughout its whole volume with a controllable gas feeding, therefore the quality of the resulting hard candy is not uniform.

With regard to the problem to be solved and to the desired technical result, the closest analog of the present invention is the process of producing hard candy, comprising preparing a syrup by dissolving sugar, adding corn syrup and water, evaporating the obtained mixture with the addition of flavors in the end of evaporation; gasifying the melt in a horizontal vessel with simultaneous agitation by screw blades, cooling and forming separate pieces of the product [2].

For gasifying candy melt, the gas is fed into a hollow screw and then, through the openings arranged along the length of the screw, into the candy melt.

The deficiency of the known process is that the production of candy is complicated and costly, because frequent cleaning of the openings is necessary.

The advantageous result achieved by the claimed technical solution consists in improvement of the quality of hard candy by means of providing more uniform treatment though the whole volume, and also in possibility of obtaining hard candies having diverse textural characteristics by adjusting the air feeding during the gasification of the candy.

To achieve the indicated result, in the process of producing hard candy, comprising preparing a syrup, including the step of dissolving sugar, adding molasses and water, evaporating the obtained mixture, adding flavors, gasifying the melt with air in a horizontal vessel with simultaneous agitation by a screw, cooling and forming separate pieces of the product, fruit extract may be further added to the syrup during its preparation, the mixture is evaporated to the solids content of 60-65%, the feeding of the air during gasification of the candy melt being effected by distributing the air through the nozzles mounted on the bottom of the horizontal vessel along the whole length of the vessel, wherein the addition of flavors is effected in the step of gasifying the candy melt with air.

The rate of the air stream through each nozzle may be adjusted to obtain candies having diverse characteristics.

The invention is further explained by the following description of the embodiment of the claimed process.

First a syrup is prepared, for that, sugar is dissolved, molasses and water are added to the solution, and the resulting mixture is subjected to evaporating. During the preparation of the syrup, a fruit extract may be further added to the mixture. The evaporation of the mixture is effected until the solids content of 60-65%. The obtained hot candy melt is gasified to saturate the melt with air, said air being fed into a horizontal vessel through nozzles. Inside the vessel, a screw is mounted. The candy melt is gasified in the horizontal

vessel with the pressurized air fed through the nozzles and at the same time it is agitated with the screw blades and mixed with the added flavors. The nozzles are mounted on the bottom of the horizontal vessel along its whole length. The rate of the air stream through each nozzle is adjusted to obtain candies having diverse characteristics.

The pressurized air is forwarded to the horizontal vessel through a pressure air line and through a shut-off valve. The pressure of the air is monitored with the aid of a manometer and it is adjusted by the valve in the range of $P = 1$ to 8 kg/cm^2 .

The rate of the air stream fed into the horizontal vessel is controlled with the aid of a ball rotameter, the ball of which is suspended. The air is fed to the rotameters through a shut-off valve. The pressure of the air is controlled with the aid of a manometer ($P = 0.3$ to 1.5 kg/cm^2). The air for each nozzle is fed through an individual manometer. When the process of gasifying candy melt is completed, the valves should be closed in the reverse sequence.

The candy melt which has been aerated and mixed with the additives, is discharged from the horizontal vessel onto a cooling conveyor belt, on which the melt is tempered. The discharge of the melt from the horizontal vessel onto the belt is effected through an outlet in the bottom part of the vessel. Then the melt is transferred to molding, where separate candies are formed.

Characteristics of the candy

The candy has regular shape which is traditional for this type of candies, and smooth surface without traces of the leakage of the melt outside the shell.

CLAIMS

1. Method for producing hard candy, comprising preparing a syrup, which includes dissolving sugar, adding molasses and water and evaporating the resulting mixture, adding flavors, gasifying the candy melt with air in a horizontal vessel with the simultaneous agitation by a screw, tempering and molding the melt in the form of separate articles, characterized in that the evaporation is effected until the solids content of 60-65% is obtained, and the air is fed, during gasification of the candy melt, by distributing the air through the nozzles mounted on the bottom of the horizontal vessel along the whole length of the vessel, wherein the addition of flavors is effected in the step of gasifying the candy melt with air.
2. The method of claim 1, characterized in that during the preparation of the syrup, a fruit extract is further added therein.
3. The method of claim 1, characterized in that the air stream rate through each nozzle is adjusted to obtain candies having diverse characteristics.